SIMULATION AND SYNTHESIS OF
METASTABLE FLIP FLOPS

ABSTRACT OF THE INVENTION

5   A method for simulating an array of flip flops including metastable
effects. The method can also be used for synthesis. For simulation, a first set
of values representing input values for a first rank of flip flops in the array is
received. The first set of values includes a bit value for each flip flop in the first
rank. An input for each flip flop in a second rank is computed by selecting
10   between a bit value from the first set of values and a bit value from a second
set of values, wherein the second set of values represents values previously
held in the first rank. Each flip flop in the second rank thus receives a bit value
from either the first set or the second set of values. A metastable boundary is
thereby simulated between the first and second ranks of the array.